

North Springs Improvement District is pleased to present this year's Annual Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.



#### Overview

In 2008 1.443 billion gallons of water was distributed to the customers of North Springs Improvement District. The water source for the District is the Biscayne Aquifer an underground geological formation. The Biscayne Aquifer has been a reliable source of high quality water since the early 1920's. Water from the Aquifer is withdrawn and pumped to the water treatment plant by 9 raw water wells located within the District. It is then treated by lime softening that removes 75% of the calcium, the main hardness producing component in ground water. The water is then filtered, disinfected with chlorine and ammonia for bacteria removal. Fluoride is added as an aid in preventing tooth decay.

#### Source Water Assessment

As part of the Federal Safe Drinking Water Act, the Florida Department of Environmental Protection (FDEP) performed a Source Water Assessment (SWA) on our system in 2004. The SWA results for North Springs Improvement District are available on the FDEP Source Water Assessment and Protection Program Website at www.dep.stste.fl.us/swapp

The EPA requires North Springs Improvement District and all water suppliers in the United States, to provide a summary report on laboratory tests taken on it's drinking water throughout the year. The 2008 Water Quality Table includes the most important information about your water. It shows the results of thousands of laboratory tests conducted on N.S.I.D. water system and what they mean. Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply, we sometimes need to make improvements that will benefit all of our customers. These improvements are sometimes reflected as rate structure adjustments. Thank you for understanding.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

**Contaminants** that may be present in source water include; A. Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife. B. Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming. C. Pesticides and herbicides, which may come from a variety of sources, such as agriculture, urban stormwater runoff and residential uses. D. Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems. E. Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the EPA (Environmental Protection Agency) prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) establish limits for contaminants in bottled water, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791

#### ADDITIONAL HEALTH INFORMATION

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by viral and microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791). Water quality data for community water systems throughout the United States is available at <a href="https://www.waterdata.com">www.waterdata.com</a>

# Terms & Abbreviations'

In the table of results, you may find unfamiliar terms and abbreviations. To help you better understand these terms we've provided the following definitions:

# **Key to Table**

AL = Action Level

MCL= Maximum Contaminant Level

MCLG= Maximum Contaminant Level Goal

pCi/L= picocuries per Liter

mrem/yr= millirems per year

ppm = Parts per million

ppb = Parts per billion

ug/L= Micrograms per Liter

N/D = Not detected

RAA = Running Annual Average

#### **Definitions**

<u>Action Level:</u> The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

<u>pCi/L (Picocurie per liter):</u> A measure of the radioactivity in water.

Millirems per year: A measure of radiation absorbed through the body.

Parts per million: 1 part by weight of analyte to 1 million parts by weight of the water sample.

Parts per billion or Micrograms per liter: 1 part by weight of analyte to 1 billion parts by weight to water sample.

N/D: Means not detected and indicates that the substance was not found by laboratory analysis.

**Total Coliform:** The Total Coliform Rule requires water systems to meet a stricter limit for coliform bacteria. Coliform bacteria are usually harmless, but their presence in water can be an indication of disease-causing bacteria. When coliform bacteria are found, special follow-up tests are done to determine if harmful bacteria are present in the water supply. If this limit is exceeded, the water supplier must notify the public by newspaper, television or radio.

# MICROBIOLOGICAL CONTAMINANTS

Contaminant and Unit of Measurement	Sampling	MCL Viola- tion Y/N	Highest Monthly Percent- age	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria	Jan.08 / Dec.08	NO	0%	0	For systems collecting at least 40 samples per month: Presence of coliform bacteria in 5% of monthly samples	Naturally present in the environment

# **Disinfection By-products**

Contaminant and Unit of Measurement	Dates of Sampling	Units	MCL Violation Y/N	Level De- tected	Range of Results	MCL	Likely Source of Contamination
Chlorine (ppm)	2008	ppm	No	0.0/3.0	0.0/2.9 0.0/3.5	4.0	Water additive used for disinfection
Haloacetic Acids (HAA5)	2008	ppb	No	(RAA) 56.55	54.7/58.4	60	By-Product of drinking water disinfection
TTHM (Total trihalomethanes)	2008	ppb	No	(RAA) 21.6	17.6/25.7	80	By-Product of drinking water disinfection

For the parameters monitored under Disinfection By-Product regulations, the level detected is the highest annual average of the quarterly average: Chloramines, Haloacetic Acid, and or TTHM. Range of results is the range of results (lowest to highest) at individual sampling sites.

### **INORGANIC CONTAMINANTS**

Contami- nant	Date Tested	Units	MCL	MCLG	Analysis Result	Major Sources	Violations
Fluoride	2008	ppm	4.0	.8	1.20	Erosion of Natural deposits / Water Additive	No
Sodium	2008	ppm	160.0	N/A	27.0	Salt water intrusion, leaching from soil	No
Nitrite	2008	ppm	1.0	1.0	0.006	Erosion of natural deposits	No
Barium	2008	ppm	2.0	2.0	0.005	Erosion of natural deposits	No

### LEAD and COPPER (TAP WATER)

Contaminant and Unit of Measure- ment	Dates of Sampling (mo./yr.)	AL Viola- tion Y/N	90th Percentile Result	No. of sam- pling sites exceeding the AL	MCLG	AL (action level)	Likely Source of Contamination
Copper (Tap water) mg/L	8//2007	No	0.099	0	1.3	1.3	Corrosion of household plumbing Decay of natural and man made deposits
Lead (Tap water) ppb	8//2007	No	1.0	0	0	15	Corrosion of household plumbing Decay of natural and man made deposits

For lead and copper; 30 samples were collected randomly from the water distribution system. Results are reported as the 90th percentile value of the most recent round of sampling.

# RADIOLOGICAL CONTAMINANTS

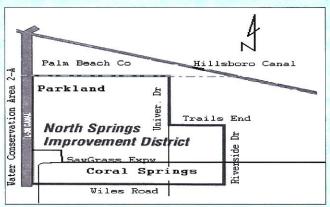
Contaminant and Unit of Measurement	Dates of Sampling (mo./yr.)	MCL Viola- tion Y/N	Level Detected	Range of Results	MCL	Likely Source of Contamination
Alpha emitters (pCi/L)	Mar-08	No	0.0	NA	15	Erosion of natural deposits
Radium 226 + 228 or combined Radium (pCi/L)	Apr08	No	0.8	NA	5	Erosion of natural deposits



9700 N.W. 52nd Street Coral Springs, Fl. 33076

# North Springs Improvement District Service Area Map

This report was prepared with Florida Rural Water Association and The Department of Environmental Protection template for Consumer Confidence Reports. If you have any questions about the quality of our water, you may contact the water treatment plant at (954) 752-0400, or E-mail <a href="mailto:rodc@fladistricts.com">rodc@fladistricts.com</a> Visit us on the web at <a href="www.fladistricts.com">www.fladistricts.com</a>.



# **Water Conservation**



Improvement District

It's hard to believe that with all the rain that South Florida gets, we would have to worry about water, but it's true. South Florida residents use more water per person than almost anywhere else in the country, and we also experience periodic water shortages. You can cut your water usage in half by changing a few habits and taking advantage of some "pain-free" water-saving devices. When you start saving water, you start saving money! Follow these steps throughout the house and watch your water bill drop!



# Did you spring a leak?

Make sure your home is leak-free. Check your water meter over a period of time when you are certain that no water is being used. If the meter reading changes, you have a leak!

#### Time is of the essence!

Repair leaks as soon as they are discovered. A seemingly small leak can waste 70 - 100 gallons of water per day



Is your toilet tank taking you to the bank? It may be difficult to see the leak, so check by add-

ing a few drops of food coloring into the tank. Wait 20 minutes and then look in the bowl for traces of the dye. If you see the dye in the bowl, you have a leak. If the color in the tank is lighter or you don't see the dye any longer, this is another indication that you have a leak. Call a plumber if you can't fix the problem yourself.



# Don't overwash.

By eliminating the pre-soak and second rinse cycles when you use

your washing machine, you can save as much as 19 gallons of water per load.



# Car wash, anyone?

When washing your car, move your car onto the grass. This

way the excess water can percolate into the ground and recharge the aquifer, our primary source of drinking water.

#### Defrost food in the refrigerator.

Don't use running water to thaw food; it wastes water. Defrosting in the refrigerator also helps prevent bacterial contamination.

# Water can be recycled too.

Don't pour water down the drain when there may be another use for it. For example, you can use it to water your indoor plants or garden.



# Install high-efficiency devices.

Installing a high-efficiency showerhead or fitting a flow restrictor into your current showerhead can reduce water use by 50%. A water efficient sink faucet aerator can save up to 280 gallons per year. These devices also save on hot water costs and increase water pressure.

#### Cut down on marathon showers.

A shower almost always uses less water than a bath. Even a five-minute shower can use about 35 gallons of water, so keep it short! Shorter showers save hot water costs and air conditioning bills.

### Turn off the water while brushing teeth or shaving.

Only turning on the water to rinse can save up to 10 gallons of water per day.



# Top 10 Tips for the Home Gardener

- 1. Water infrequently, deeply and thoroughly Most lawns need about 3/4 to 1 inch of water once per week, or once every two weeks when the weather cools. Water can come from rain, or from irrigation. Infrequent but deep watering will encourage deep rooting, healthier and hardier plants with a greater tolerance for drought.
- **2.** Water at the right time of day Water early in the day, especially in warmer weather, when evaporation rates are lowest.
- **3. Watch your lawn rather than a calendar** Your lawn needs watering when:
- Grass blades are folded in half
- Grass blades are blue-gray

Your footprint remains on the lawn

If <u>water restrictions</u> are in effect in your community, you <u>must</u> adapt your watering to fit the restrictions.

- **4. Too much water can hurt plants** over-watering creates shallow roots, making plants more vulnerable to disease and pests, as well as drought.
- **5. Drip or micro-irrigation systems save water** These systems deliver water to the root of plants, and much less is lost to the atmosphere.
- **6. Mulching** Adding mulch helps to keep water in the soil around plants. At least two inches is suggested around shrubs, trees, annuals and vegetable and flower gardens.
- **7. Remove Weeds; Add Native Plants** Weeds or other unwanted plants use water. Removing them means more water for the plants you want. Native plants are adapted to our rainy and dry seasons, and offer habitat to area wildlife.
- **8. Install a rain sensor** This recognizes when nature brings the water your lawn needs, and shuts off automatic sprinklers.
- **9. Adjust your lawnmower blades** Most lawns are healthiest when blades are 2 1/2 to 3 1/2 inches long. Longer blades shade the soil, and keep in water.
- **10.** Keep lawnmower blades sharp Clean, sharp cuts cause less trauma to grass blades, making the grass more resistant to disease.

# Florida-Friendly Landscaping

A Florida-friendly yard doesn't merely offer beautiful landscapes — it also becomes an asset to the environment, protecting natural resources and preserving Florida's unique beauty. Recognizing that the home landscape is part of a larger natural system will help in creating a Florida-friendly yard.

The University of Florida's Florida Yards & Neighborhoods (FYN) Program provides science-based education to the public on how to create a Florida-friendly yard. The Southwest Florida Water Management District partners with the university to provide the education outreach by supporting FYN programs through county Extension offices in 11 of its 16 counties.

Florida-friendly landscaping can be considered an expansion of Xeriscape. A Florida-friendly yard goes beyond Xeriscape, which was started in Colorado, to better fit our unique geography. It includes best management practices concerning stormwater runoff and living on a waterfront.

A properly maintained Florida-friendly yard can help homeowners conserve water and reduce pollution of water resources. The Florida-friendly approach to landscaping emphasizes nine interrelated principles.

### 1. Right plant, right place

Plants selected to suit a specific site will require minimal amounts of water, fertilizers and pesticides.

## 2. Water efficiently

Irrigate only when your lawn needs water. Efficient watering is the key to a healthy Florida yard and conservation of limited resources.

# 3. Fertilize appropriately

Less is often best. Overuse of fertilizers can be hazardous to your yard and the environment.

#### 4. Mulch

Maintaining a 3-inch layer of mulch will help retain soil moisture, prevent erosion and suppress weeds

# 5. Attract wildlife

Plants in your yard that provide food, water and shelter will attract Florida's diverse wildlife.

## 6. Manage yard pests responsibly

Unwise use of pesticides can harm people, pets, beneficial organisms and the environment.

#### 7. Recycle

Grass clippings and leaves provide nutrients to the soil and reduce waste disposal when reused on the landscape.

#### 8. Reduce stormwater runoff

Water running off your landscape can carry pollutants such as soil, debris, fertilizer, gasoline and pesticides that can adversely impact water quality. Reduction of this runoff will help prevent nonpoint-source pollution.

#### 9. Protect the waterfront

Waterfront property, whether on a river, stream, pond, bay or beach, is very fragile and should be carefully protected to maintain freshwater and marine ecosystems.